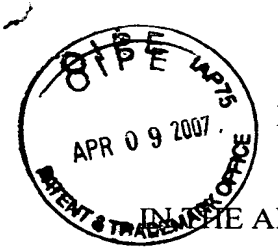
Rev. 10/93



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF:

JOSEPH J. KEENAN ET. AL. CASE NO.: BA9309USPCT

APPLICATION NO.: 10/524807 GROUP ART UNIT: 1615

FILED: SEPTEMBER 09, 2003 (PCT) EXAMINER:

FOR: PROCESS FOR PREPARING PASTE-EXTRUDED SULFONAMIDE COMPOSITIONS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INVENTOR'S STATEMENT

I, Luann M. Pugh, hereby state that:

1. I am a Ph. D. chemist employed by E. I. du Pont de Nemours and Company ('DuPont"), the assignee of the above-referenced application, and since 1988 I have been involved in research and development relating to DuPont's formulation of sulfonylurea-containing herbicide products.

2. I have reviewed DuPont records relating to the formulation and manufacture of DuPont sulfonylurea products formulated with inorganic bases and have reviewed the claims of the above-referenced patent application. The table below provides information in connection with products commercialized prior to September 12, 2002 (the priority date of the above-referenced application) that were formulated using both a sulfonylurea and an inorganic base. More particularly, the table lists components used to prepare the products, and the type of process used to manufacture the product. Product Nos. 7, 9, 11 and 13 were on sale in the United States prior to September 12, 2002. Product Nos. 1 through 6, 8, 10 and 12 were on sale outside the United States prior to September 12, 2002. All of the products listed in the table were formulated using the listed sulfonylurea in an amount from 2 to 90% by weight on a water-free basis, and using (in an amount less than 95% by weight on a water-free basis) an additive of the type recited in (a)(ii) of Claim 1.

Product No.	Sulfonylurea	type of herbicide composition (FAO Code)	Granule Formation Method	base amount used	equivalent % base having delta PK_a>2.1 used (Claim 1(a)(iii)	contained 0.5-94% saccharide ? (see Claim 15)
1	bensulfuron methyl	WP	none	5% Na_2CO_3 + 35% $NaHCO_3$	320	no
2	chlorimuron ethyl	WG	Melt extrusion	30% Na_3PO_4 (anhydrous)	760	no
3	metsulfuron methyl	WG	Melt extrusion	10% K_2HPO_4	220	no
4	metsulfuron methyl	WG	Melt extrusion	10% K_2HPO_4	110	no
5	metsulfuron methyl	WP	none	6% Na_3PO_4 (anhydrous)	140	no
6	metsulfuron methyl	WG	Melt extrusion	20% Na_3PO_4 (anhydrous)	460	no
7	metsulfuron methyl	WG	Paste extrusion	1.5% Na_3PO_4 (anhydrous)	10	yes
8	metsulfuron methyl	WP	none	3% Na_3PO_4 (anhydrous)	20	no
9	metsulfuron methyl	WG	Fluid bed granulation	9% Na_3PO_4 (anhydrous)	70	yes
10	rimsulfuron	WG	Fluid bed granulation	42% Na_2HPO_4	510	no
11	sulfometuron methyl	WG	Paste extrusion	10% Na_3PO_4 *$12H_2O$	10	yes
12	tribenuron methyl	WP	none	1% Na_2CO_3	20	no
13	tribenuron methyl	WG	Fluid bed granulation	4% Na_2CO_3	20	no

Product No. 1 also contained another active ingredient

"WP" in the table above means a wettable powder product as designated by the Food and Agriculture Organization of the United Nations (the FAO) that is produced by blending and grinding the components into a powder rather than granules.

"WG" in the table means a water dispersible granule product as designated by the FAO that is produced by blending and grinding the components and then forming the resulting mixture into granules.

In melt extrusion, blended and ground components are processed through a melt extruder and granules are formed from the extrudate.

In paste extrusion, blended and ground components are provided with sufficient water to make an extrudable mixture, and the mixture is processed through a paste extruder. The resulting wet extrudate is dried. Granules are formed from the extrudate.

In fluid bed granulation, blended and ground components are fluidized in a fluidized bed granulator and sprayed with water. Granules are formed by drying the resulting particles .

3. I consider the processes used to produce Product Nos. 1, 5, 8 and 12 to be substantially different from the paste extrusion process encompassed by Claims 1 through 16 of the above-referenced patent application, at least because the processes used to produce Product Nos. 1, 5, 8 and 12 resulted in a powder that is not produced by paste extrusion. I consider the processes used to produce Product Nos. 2, 3, 4 and 6 to be substantially different from the paste extrusion process encompassed by Claims 1 through 16 of the above-referenced patent application, at least because the processes used to produce Product Nos. 2, 3, 4 and 6 formed granules from a melt extrusion process rather than from a paste extrusion process. I consider the processes used to produce Product Nos. 9, 10 and 13 to be substantially different from the paste extrusion process encompassed by Claims 1 through 16 of the above-referenced patent application, at least because the processes used to produce Product Nos. 9, 10 and 13 formed granules by spraying in a fluidized bed and drying rather than from a paste extrusion process. I consider the processes used to produce Product Nos. 7 and 11 to be substantially different from the paste extrusion process encompassed by Claims 1 through 16 of the above-referenced patent application, at least because the processes used to produce Product Nos. 7 and 11 used substantially lower equivalent percentages of base having delta pK_a>2.1 than the highest pK_a of the sulfonylurea used, than the equivalent percentages required by Claims 1 through 16. As demonstrated in Table 2 of the above-referenced application, use of higher equivalent percentages of base in the preparation of sulfonylurea products by paste extrusion provides a clean-out advantage when the resulting products are evaluated in the clean out test. Accordingly, I conclude that the process of Claims 1 through 16 and paste-extruded sulfonamide herbicide compositions prepared by that process, are neither anticipated nor rendered obvious to one of ordinary skill by products 1 through 13 or the processes used for producing products 1 through 13.

I further state that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Luann M Pugh
Luann M. Pugh
Date: 2 April 2007

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DECLARATION

1. I, William Ewbank, head of Research and Development of the Tensiofix Division of Ajinomoto Omnichem N.V., hereby declare that Ajinomoto Omnichem N.V., a manufacturer of surfactants for agrochemicals, have from January 1990 prepared several metsulfuron methyl formulations comprising our Tensiofix surfactants. These formulations have been made available to the public and have been described in our brochures.

2. These brochures have from May 1999 been sent out to our clients for sales purposes. One of our clients being Agrichem B.V. in Oosterhout, the Netherlands.

3. The first brochure sent out to our clients and without confidentiality, i.e. the attached brochure from May 1999, comprised one metsulfuron methyl formulation, namely:

Metsulfuron methyl 200 g/kg (extrusion)	
Metsulfuron methyl (90%)	22,22 g
Na_2CO_3	10,00 g
Mannitol	65,28 g
Tensiofix LX Special	1,00 g
Tensiofix 80B SP	0,50 g
Tensiofix LB100 (40 % water)	2,50 g
Total	**100,00 g dry weight**

4. The second brochure sent out to our clients without confidentiality, i.e. the attached brochure from September 1999, comprised two metsulfuron methyl formulations, namely:

Metsulfuron methyl 200 g/kg (extrusion)		**Metsulfuron methyl 600 g/kg (extrusion)**	
Metsulfuron methyl (89,7%)	22,22 g	Metsulfuron methyl (89,7%)	66,86 g
Na_2CO_3	10,00 g	Na_2CO_3	5,00 g
Mannitol	62,78 g	Mannitol	25,64 g
Tensiofix LX Special	3,00 g	Tensiofix LX Special	1,00 g
Tensiofix 80B SP	1,00 g	Tensiofix 80B SP	0,50 g
Tensiofix LB100 (40 % water)	2,50 g	Tensiofix LB100 (40 % water)	2,50 g
Total	**100,00 g dry weight**		**100,00 g dry weight**

5. I herewith declare that this declaration is true and upon request I am willing to repeat the statements made in this declaration under oath.

09/01/2007.

William Ewbank
Head of R&D
Tensiofix Division
s.a. Ajinomoto Omnichem n.v.

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DECLARATION

1. I, Peter Voorbraak, managing director of Agrichem B.V., hereby declare that Ajinomoto Omnichem N.V., a manufacturer of surfactants for agrochemicals, have from February 2000 sent us brochures wherein amongst others metsulfuron-methyl formulations are described.

2. The first brochure received by Agrichem B.V. without any obligation to confidentiality, i.e. the attached brochure from September 1999, comprised two metsulfuron methyl formulations, namely:

Metsulfuron methyl 200 g/kg (extrusion)		**Metsulfuron methyl 600 g/kg (extrusion)**	
Metsulfuron methyl (89,7%)	22,22 g	Metsulfuron methyl (89,7%)	66,86 g
Na_2CO_3	10,00 g	Na_2CO_3	5,00 g
Mannitol	62,78 g	Mannitol	25,64 g
Tensiofix LX Special	3,00 g	Tensiofix LX Special	1,00 g
Tensiofix 80B SP	1,00 g	Tensiofix 80B SP	0,50 g
Tensiofix LB100 (40 % water)	2,50 g	Tensiofix LB100 (40 % water)	2,50 g
Total	**100,00 g dry weight**		**100,00 g dry weight**

3. I herewith declare that this declaration is true and upon request I am willing to repeat the statements made in this declaration under oath.

Peter Voorbraak 10 JAN. 2007
Managing Director of
Agrichem B.V.